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10/060,315	02/01/2002	Satoshi Ejima	032404.01	8567

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EXAMINER

JERABEK, KELLY L

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/060,315

Applicant(s)

EJIMA ET AL.

Examiner

Kelly L. Jerabek

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-51 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 14-17, 25, 28-30, 35, 37-40, 45, and 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. US 5,796,428 in view of Martinez et al. US 6,137,468.

Re claim 1, Matsumoto discloses in figures 2 and 3 an information processing apparatus (image-capturing unit (101)) including a detection means (CCD (203)) and display means (207,305) for displaying image information captured by the CCD (203).

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The display means (207, 305) allow a user to view an image displayed on the display (col. 8, line 44 – col. 9, line 22). Although the Matsumoto reference discloses a camera including a display means for displaying image information it fails to distinctly disclose a detection means for detecting a rotation or linear movement of the display while the display is displaying information and a display changing means for changing means for changing a display content displayed according to the rotation or linear movement detected by a detection means while the information continues to be displayed.

Martinez discloses a system used to adjust visual components on a display device so that the components are level regardless of the position of the display device. The system includes a detection means (702) for detecting rotation of a display (301) while the display is displaying at least one of image information, character information, and graphical information; and a display changing means (704) for changing a display content displayed by the display according to the rotation detected by the detection means (702). Also, the display changing means (704) changes the display content while the image information, character information, and graphical information continue to be displayed (col. 5, line 7 – col. 7, line 16; figs. 5A-5c, 6a-6c, 7). Therefore, it would have been obvious for one skilled in the art to have been motivated to include the detection means and display changing means disclosed by Martinez in the digital camera including a display means disclosed by Matsumoto. Doing so would provide a means for altering the display of an object on a display based on changes in the attitude of the display device relative to a reference plane in order to allow a user to easily view the information being displayed (Martinez: col. 2, lines 13-27).

Re claim 2, Matsumoto teaches that a detection means (CCD 203) photographs an image and detects at least one of rotation and linear movement of the display means based on a change in the photographed image over time (col. 3, lines 42-51; col. 7, line 24 – col. 8, line 62). Since the display (305) is attached to the camera, the difference between pictures taken by the CCD (203) of the camera may be used to detect movement of the camera and the display.

Re claim 3, Matsumoto states that the detection means (203) includes a means for converting light to electric signals (col. 8, lines 44-62).

Re claim 14, Matsumoto states that the apparatus is an electronic camera (col. 7, lines 24-56; col. 8, lines 28-62).

Re claim 15, see claim 1.

Re claim 16, see claim 2.

Re claim 17, Matsumoto states that the photoelectric converter includes a charge-coupled-device (CCD 203, col. 8, lines 44-48).

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Re claim 25, Martinez states that the display controller (704) rotates the display contents by a specified angle when rotation around an axis perpendicular to a screen of the display is detected by the detector (702) (col. 6, line 38-col. 7, line 16).

Re claim 28, see claim 14.

Re claim 29, see claim 1.

Re claim 30, see claim 2.

Re claim 35, see claim 25.

Re claim 37, Martinez states that the system includes a detection means (702) for detecting rotation of a display (301) while the display is displaying at least one of image information, character information, and graphical information (col. 5, line 7 – col. 7, line 16). Therefore, the electronic device is the display.

Re claim 38, Matsumoto discloses a digital camera including a display (207,305) (col. 7, lines 24-56; col. 8, lines 28-62). Therefore, the detection of the rotation of the display will also detect the rotation of the camera since the camera includes a display.

Re claim 39, the combination of the Matsumoto and Martinez references discloses all of the limitations of claim 1 above. Claim 39 differs from claim 1 in that the claim requires a recording medium that stores a computer-readable control program which is executable by a controller of the information processing apparatus. Although Matsumoto does not explicitly teach a recording medium for storing an executable computer-readable program for the information processing apparatus to perform the above claimed steps, Matsumoto teaches that the image recording/reproducing apparatus is controlled by the microprocessors of the image storage/display unit, e.g., controllers 111/112 (see col. 7, line 24 – col. 8, line 43; col. 9, lines 23-48). For the purpose of enhancing or updating the microprocessors' functions, it is well known in the art that microprocessors are downloaded with computer readable and executable programs which are stored in various recording mediums. Thus, it would have been obvious that one of ordinary skill in the art would modify the image recording and reproducing apparatus taught in Matsumoto in view of Martinez to be provided with the computer readable programs which are executable by the microprocessors 111/112 so as to allow functions of these microprocessors to be updated or enhanced.

Re claim 40, Matsumoto teaches that a detection means (CCD 203) photographs an image and detects at least one of rotation and linear movement of the display means based on a change in the photographed image over time (col. 3, lines 42-51; col. 7, line 24 – col. 8, line 62). Since the display (305) is attached to the camera, the difference

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between pictures taken by the CCD (203) of the camera may be used to detect movement of the camera and the display.

Re claim 45, Martinez states that the display controller (704) rotates the display contents by a specified angle when rotation around an axis perpendicular to a screen of the display is detected by the detector (702) (col. 6, line 38-col. 7, line 16).

Re claim 47, Martinez states that the system includes a detection means (702) for detecting rotation of a display (301) while the display is displaying at least one of image information, character information, and graphical information (col. 5, line 7 – col. 7, line 16). Therefore, the electronic device is the display.

Re claim 48, Matsumoto discloses a digital camera including a display (207,305) (col. 7, lines 24-56; col. 8, lines 28-62). Therefore, the detection of the rotation of the display will also detect the rotation of the camera since the camera includes a display.

Re claim 49, see claim 1.

Re claim 50, Matsumoto discloses a digital camera including a display (207,305) (col. 7, lines 24-56; col. 8, lines 28-62). Therefore, the detection of the rotation of the display will also detect the rotation of the camera since the camera includes a display.

Re claim 51, Matsumoto states that the electronic device is a device that stores at least one of image information, character information and graphical information (col. 7, line 57 – col. 8, line 27).

Claims 4-8, 18-22, 31-32, and 41-42 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Martinez et al. and further in view of Gordon et al. US 5,884,867.

Re claims 4-6, 18-20, 31-32, and 41-42, these claims differ from Matsumoto in view of Martinez in that the claims further require that the detection means includes a piezoelectric gyroscope that detects the rotation of the display means based upon detection of an angular velocity of the display means with respect to two axes. Although the combination of the Matsumoto and Martinez references does not specifically teach a piezoelectric gyroscope for detecting the angular velocity of the display means with respect to two axes, Martinez does teach a detection means (702) for detecting rotation of a display (301) while the display is displaying at least one of image information, character information, and graphical information; and a display changing means (704) for changing a display content displayed by the display according to the rotation detected by the detection means (702) (col. 5, line 7 – col. 7, line 16; figs. 5A-5c, 6a-6c, 7). Gordon teaches a photographic system including a line/area scanner camera (40), wherein motion of the camera is detected by a conventional gyroscope or any directional or angular velocity sensor (col. 4, line 5 – col. 5, line 4). Therefore, it would

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have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus disclosed by Matsumoto in view of Martinez by providing a gyroscope for detecting the rotation of the display means based upon detection of an angular velocity of the display means with respect to two axes, as taught by Gordon, so as to accurately provide the display's location in two dimensions.

Re claims 7-8 and 21-22, Gordon states that the control loop for the camera (40) includes a compass (58) and a rotation gauge (59) (col. 4, line 60 – col. 5, line 4). Therefore, it can be seen that the combination of Matsumoto, Martinez, and Gordon teaches that a detecting means includes an electronic compass for detecting the rotation of the display based on a change in bearing information detected for the display means of the camera over time.

Claims 9 and 23 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Martinez et al. and further in view of Parulski et al. US 5,900,909.

Re claims 9 and 23, Matsumoto teaches a photoelectric converter (Fig. 2, CCD 203) that generates a photographic image of a photographic object (col. 8, lines 44-62); a memory (Fig. 1, storage unit 104) that stores the photographic image generated by the photoelectric converter (col. 8, line 63 – col. 9, line 22), and wherein the display controller is coupled to the photoelectric converter and to the memory to control imaging

of the photographic object by the photoelectric converter and storage of the photographic image in the memory (col. 7; line 24 – col. 8, line 43). Claims 9 and 23 differ from Matsumoto in view of Martinez in that the claims require the controller changes the display content based on photographic images that are not stored in the memory.

Parulski discloses an electronic camera including a display 34 and camera controllers (Fig. 2: 36, 38) wherein the controller changes the display content (orientation) based on captured images that are not stored in the memory (Figs. 3-4; col. 3, line 18 – col. 4, line 26; col. 5, line 40 – col. 6, line 5). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the image processing apparatus of Matsumoto in view of Martinez by allowing the controller to change the display content based on photographic images that are not stored in the memory. Doing so would provide a means for storing each image in a memory in its proper orientation (Parulski: col. 5, lines 51-60).

Claims 10, 13, 26-27, 33, 36, 43, and 46 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Martinez et al. and further in view of Petruchik et al. US 5,619,738.

Re claims 10, 27, 33, and 43, these claims differ from Matsumoto in view of Martinez in that the claims further require the display changing means changes a magnification amount of the contents displayed on the display means when the

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detection means detects movement of the display means in a direction along an optical axis of the detection means.

Petruchik discloses an electronic image display (Figs. 3-4_ including an LCD (48) wherein the captured images are zoomed and cropped when panning, tilting or horizontal/vertical orientation is provided to the display (col. 4, line 46 – col. 6, line 26). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus shown by Matsumoto in view of Martinez by allowing the display changing means to change a magnification amount of the contents displayed on the display when the detection means detects movement of the display means in a direction along an optical axis of the detection means as disclosed by Petruchik. Doing so would provide a means for cropping an image by zooming the image while panning the camera (Petruchik: col. 5, lines 5-8).

Re claims 13, 26, 36, and 46, Matsumoto, as modified by Petruchik, teaches that the display changing means scrolls the contents displayed on the display means in a specific direction when rotation around a specified axis parallel to the screen of the display means is detected by the detection means (Petruchik: col. 4, line 46 – col. 6, line 26).

Claims 11-12, 34, and 44 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Kawamura et al. US 5,576,759.

Re claims 11, 34, and 44, these claims differ from Matsumoto in view of Martinez in that the claims further require prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means.

Kawamura discloses a digital camera including an imaging unit (101), an attitude detection sensor (13), and a control unit (104) (see Figs. 1-2). Kawamura further states that the images are rotated based on the output from the attitude detection sensor (Figs. 6-7; col. 7, line 8 - col. 8, line 37). Kawamura also teaches an attitude classification switch (14b), wherein when the switch (14b) is not in operation, captured images are not rotated and grouped in order of photography (col. 7, lines 43-59). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus of Matsumoto in view of Martinez by providing prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means as disclosed by Kawamura. Doing so would provide a means for recording images to memory without changing the orientation based on rotation of the camera (Kawamura: col. 7, lines 44-59).

Re claim 12, Martinez states that the display controller (704) rotates the display contents by a specified angle when rotation around an axis perpendicular to a screen of the display is detected by the detector (702) (col. 6, line 38-col. 7, line 16).

Claim 24 rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Martinez et al. in view of Parulski et al. and further in view of Kawamura et al.

Re claim 24, this claim differs from the combination of Matsumoto, Martinez, and Parulski as applied to claim 23 in that the claim further requires prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means.

Kawamura discloses a digital camera including an imaging unit (101), an attitude detection sensor (13), and a control unit (104) (see Figs. 1-2). Kawamura further states that the images are rotated based on the output from the attitude detection sensor (Figs. 6-7; col. 7, line 8 - col. 8, line 37). Kawamura also teaches an attitude classification switch (14b), wherein when the switch (14b) is not in operation, captured images are not rotated and grouped in order of photography (col. 7, lines 43-59). Therefore, it would have been obvious for one skilled in the art to have been motivated to modify the information processing apparatus disclosed by Matsumoto in view of Martinez and further in view of Parulski by providing prevention means for preventing the display changing means from changing the contents displayed on the display means when either the rotation or linear movement of the display means is detected by the detection means as disclosed by Kawamura. Doing so would provide a means for recording

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images to memory without changing the orientation based on rotation of the camera (Kawamura: col. 7, lines 44-59).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anderson et al. (US 6,765,612) discloses a method and system for naming images captured by a digital camera. The information regarding a digital camera including a display device capable of displaying in a live-view mode is relevant material.

Anderson (US 6,011,585) discloses an apparatus and method for rotating the display orientation of a captured image. The information regarding rotating a display orientation of a captured image is relevant material.

Nakano et al (US 5,640,627) discloses a display device in a camera finder. The information regarding adjusting a display based on camera orientation is relevant material.

Kim (US 5,949,504) discloses a viewing angle control apparatus for an LCD monitor of a camcorder. The information regarding controlling an LCD display based on a sensed amount of movement of an image pickup device is relevant material.

Tsuda et al. (US 6,008,844) discloses a display device having index movement direction in correspondence with aspect ratio. The information regarding a position designating circuit for a display is relevant material.

Anderson et al. (US 6,262,769) discloses a method and system for auto rotating a graphical user interface for managing portrait and landscape images in an image capture unit. The information regarding automatically rotating the user interface of a digital camera is relevant material.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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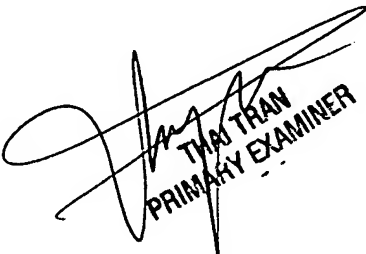
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contacts

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kelly L. Jerabek whose telephone number is **(571) 272-7312**. The examiner can normally be reached on Monday - Friday (8:00 AM - 5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached at **(571) 272-⁷³⁸²7564**. The fax phone number for submitting all Official communications is **(571) 273-8300**. The fax phone number for submitting informal communications such as drafts, proposed amendments, etc., may be faxed directly to the Examiner at **(571) 273-7312**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


THAI TRAN
PRIMARY EXAMINER